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TITLE: METHOD FOR BRAZING ALUMINUM PARTS
AND BRAZING FILLER
METAL USED FOR THIS

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ABSTRACT:

PURPOSE: To shorten heating time and to improve productivity by supplying a brazing filler metal mixed with Ni powder and/or Fe powder to an aluminum alloy brazing filler metal, melting the brazing filler metal by induction-heating and joining the aluminum parts.

CONSTITUTION: An aluminum-made pipe 1 is inserted into the joining part of an aluminum-made flange 2 and the brazing filler metal 3 is supplied on the outer periphery of the pipe 1 at the end part of the flange 2. A heating coil 4 is arranged on the outer periphery of the joining part

and high frequency current is conducted to thus heating coil 4 and the Ni powder or the Fe powder in the brazing filler metal is heated by high frequency induction to melt the brazing filler metal 3 and the brazing is executed. As the pipe 1 and the flange 2, A6063 material is used and as the aluminum alloy brazing filler metal, BA4047 material is used and the Ni powder (50%) is mixed with the filler metal and the result is sintered to make the brazing filler metal 3. By this method, the heating time required for the brazing is shortened and the productivity is improved and the brazing strength is improved.

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